

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/030, 566B  
Source: JFW16  
Date Processed by STIC: 11/02/2006

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 11/02/2006

PATENT APPLICATION: US/10/030,566B

TIME: 17:33:28

Input Set : A:\10-030566.ST25.txt

Output Set: N:\CRF4\11022006\J030566B.raw

3 <110> APPLICANT: Bayer HealthCare AG  
 4 Von Samson-Himmelstjerna, Georg  
 5 Harder, Achim  
 6 Schnieder, Thomas  
 7 Pape, Michaela  
 9 <120> TITLE OF INVENTION: DNA Coding for Beta-tubulin and its Use  
 11 <130> FILE REFERENCE: Mo-6878/LeA 33,759  
 13 <140> CURRENT APPLICATION NUMBER: 10/030,566B  
 14 <141> CURRENT FILING DATE: 2002-01-07  
 16 <150> PRIOR APPLICATION NUMBER: PCT/EP00/06104  
 17 <151> PRIOR FILING DATE: 2000-06-30  
 19 <150> PRIOR APPLICATION NUMBER: DE 199 31 883.2  
 20 <151> PRIOR FILING DATE: 1999-07-09  
 22 <160> NUMBER OF SEQ ID NOS: 51  
 24 <170> SOFTWARE: PatentIn version 3.3  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 1380  
 28 <212> TYPE: DNA  
 29 <213> ORGANISM: Cyathostomum coronatum  
 31 <400> SEQUENCE: 1

32 atgcgtgaga tcgtgcatgt acaagctgga caatgtggaa accaaattgg ttccaagttt 60  
 34 tgggaagtga tctctgacga gcatggcatt aagcccgatg gcacatacca cggagaatct 120  
 36 gatctacaat tagaacgaat caatgtgtac tataatgaag cacatggagg caaatatgtc 180  
 38 ccacgtgcag ttcttgttga tctcgagccc ggaactatgg attccgtccg ttccggggcca 240  
 40 tacgggcaat ttcttcgccc tgataactac gtgtttggac agtctggcgc aggaaataac 300  
 42 tggggcaaaag gtcactacac tgaaggcgct gaacttgctg acaatgtact agatgtagtg 360  
 44 cgaaaagaag cagaaggatg tgactgtctg gagggcttcc agctaactca ctcaacttga 420  
 46 ggaggtaccg gttcggggtat gggcactctc ctcatctcca aaattcggga ggagtatcct 480  
 48 gatagaatca tgtcctcggt ctccgttggt ccctcaccaa aggtctccga cactgttggt 540  
 50 gaggccttaca atgctaccct atccgttcat cagttgggtg aaaatacaga cgagacttat 600  
 52 tgtattgaca atgaagccct gtatgatatt tgcttccgca ctttgaaact cacgaacca 660  
 54 acttatggag atctgaatca tcttgtgtct gtaacaatgt ctggtgtcac cacatgtctt 720  
 56 cgcttccctg gccaatgaa tgccgatcta cgcaactag ctgttaacat ggttccatc 780  
 58 cctcgtcttc acttcttcat gcctggtttt gctcctcttt ctgctaaagg tgctcaggct 840  
 60 taccgtgctc ttaccgtagc cgagcttaca cagcagatgt ttgatgctaa gaatatgatg 900  
 62 gctgcttgcg accctcgaca tggacgttat ctccaccgtc cagccatgtt ccgaggaaga 960  
 64 atgagcatga ggggaagtga cgaccagatg atgtcagtgc agaacaagaa ctctcctac 1020  
 66 ttcgtagagt ggatcccgaa caacgtgaag accgctgtat gcgacatccc gccacgagga 1080  
 68 ctgaagatgg ccgctacctt cggttgaaac tcaactgcca tccaagagct gttcaagcgc 1140  
 70 atttcagaac aatttacagc catgttccgc cgcaaagcgt tcttgcatg gtacactgggt 1200  
 72 gaaggtatgg acgagatgga gttcactgaa gcagagtcca acatgaatga tctcatctcc 1260  
 74 gagtaccaac agtaccagga agccaccgct gacgacatgg gcgatcttga tgcggaaggc 1320  
 76 gctgaagagg cttatcctga ggaataaacc agcagatcgt gttgcgttgt tcgtttctct 1380

CP9-6)

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79 <210> SEQ ID NO: 2
80 <211> LENGTH: 448
81 <212> TYPE: PRT
82 <213> ORGANISM: Cyathostomum coronatum
84 <400> SEQUENCE: 2
86 Met Arg Glu Ile Val His Val Gln Ala Gly Gln Cys Gly Asn Gln Ile
87 1 5 10 15
90 Gly Ser Lys Phe Trp Glu Val Ile Ser Asp Glu His Gly Ile Lys Pro
91 20 25 30
94 Asp Gly Thr Tyr His Gly Glu Ser Asp Leu Gln Leu Glu Arg Ile Asn
95 35 40 45
98 Val Tyr Tyr Asn Glu Ala His Gly Gly Lys Tyr Val Pro Arg Ala Val
99 50 55 60
102 Leu Val Asp Leu Glu Pro Gly Thr Met Asp Ser Val Arg Ser Gly Pro
103 65 70 75 80
106 Tyr Gly Gln Leu Phe Arg Pro Asp Asn Tyr Val Phe Gly Gln Ser Gly
107 85 90 95
110 Ala Gly Asn Asn Trp Ala Lys Gly His Tyr Thr Glu Gly Ala Glu Leu
111 100 105 110
114 Val Asp Asn Val Leu Asp Val Val Arg Lys Glu Ala Glu Gly Cys Asp
115 115 120 125
118 Cys Leu Gln Gly Phe Gln Leu Thr His Ser Leu Gly Gly Gly Thr Gly
119 130 135 140
122 Ser Gly Met Gly Thr Leu Leu Ile Ser Lys Ile Arg Glu Glu Tyr Pro
123 145 150 155 160
126 Asp Arg Ile Met Ser Ser Phe Ser Val Val Pro Ser Pro Lys Val Ser
127 165 170 175
130 Asp Thr Val Val Glu Pro Tyr Asn Ala Thr Leu Ser Val His Gln Leu
131 180 185 190
134 Val Glu Asn Thr Asp Glu Thr Tyr Cys Ile Asp Asn Glu Ala Leu Tyr
135 195 200 205
138 Asp Ile Cys Phe Arg Thr Leu Lys Leu Thr Asn Pro Thr Tyr Gly Asp
139 210 215 220
142 Leu Asn His Leu Val Ser Val Thr Met Ser Gly Val Thr Thr Cys Leu
143 225 230 235 240
146 Arg Phe Pro Gly Gln Leu Asn Ala Asp Leu Arg Lys Leu Ala Val Asn
147 245 250 255
150 Met Val Pro Phe Pro Arg Leu His Phe Phe Met Pro Gly Phe Ala Pro
151 260 265 270
154 Leu Ser Ala Lys Gly Ala Gln Ala Tyr Arg Ala Leu Thr Val Ala Glu
155 275 280 285
158 Leu Thr Gln Gln Met Phe Asp Ala Lys Asn Met Met Ala Ala Cys Asp
159 290 295 300
162 Pro Arg His Gly Arg Tyr Leu Thr Val Ala Ala Met Phe Arg Gly Arg
163 305 310 315 320
166 Met Ser Met Arg Glu Val Asp Asp Gln Met Met Ser Val Gln Asn Lys
167 325 330 335
170 Asn Ser Ser Tyr Phe Val Glu Trp Ile Pro Asn Asn Val Lys Thr Ala
171 340 345 350

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174 Val Cys Asp Ile Pro Pro Arg Gly Leu Lys Met Ala Ala Thr Phe Val
175      355      360      365
178 Gly Asn Ser Thr Ala Ile Gln Glu Leu Phe Lys Arg Ile Ser Glu Gln
179      370      375      380
182 Phe Thr Ala Met Phe Arg Arg Lys Ala Phe Leu His Trp Tyr Thr Gly
183 385      390      395      400
186 Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala Glu Ser Asn Met Asn
187      405      410      415
190 Asp Leu Ile Ser Glu Tyr Gln Gln Tyr Gln Glu Ala Thr Ala Asp Asp
191      420      425      430
194 Met Gly Asp Leu Asp Ala Glu Gly Ala Glu Glu Ala Tyr Pro Glu Glu
195      435      440      445
198 <210> SEQ ID NO: 3
199 <211> LENGTH: 1429
200 <212> TYPE: DNA
201 <213> ORGANISM: Cylicocyclus nassatus
204 <220> FEATURE:
205 <221> NAME/KEY: misc_feature
206 <222> LOCATION: (51)..(51)
207 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)
209 <220> FEATURE:
210 <221> NAME/KEY: misc_feature
211 <222> LOCATION: (69)..(69)
212 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
214 <220> FEATURE:
215 <221> NAME/KEY: misc_feature
216 <222> LOCATION: (78)..(78)
217 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
219 <220> FEATURE:
220 <221> NAME/KEY: misc_feature
221 <222> LOCATION: (114)..(114)
222 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
224 <220> FEATURE:
225 <221> NAME/KEY: misc_feature
226 <222> LOCATION: (117)..(117)
227 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
229 <220> FEATURE:
230 <221> NAME/KEY: misc_feature
231 <222> LOCATION: (129)..(129)
232 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature
236 <222> LOCATION: (141)..(142)
237 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)
239 <220> FEATURE:
240 <221> NAME/KEY: misc_feature
241 <222> LOCATION: (192)..(192)
242 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)
244 <220> FEATURE:

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PATENT APPLICATION: US/10/030,566B

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Input Set : A:\10-030566.ST25.txt

Output Set: N:\CRF4\11022006\J030566B.raw

245 <221> NAME/KEY: misc\_feature  
246 <222> LOCATION: (243)..(243)  
247 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)  
249 <220> FEATURE:  
250 <221> NAME/KEY: misc\_feature  
251 <222> LOCATION: (249)..(249)  
252 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
254 <220> FEATURE:  
255 <221> NAME/KEY: misc\_feature  
256 <222> LOCATION: (252)..(252)  
257 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
259 <220> FEATURE:  
260 <221> NAME/KEY: misc\_feature  
261 <222> LOCATION: (345)..(345)  
262 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
264 <220> FEATURE:  
265 <221> NAME/KEY: misc\_feature  
266 <222> LOCATION: (454)..(454)  
267 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)  
269 <220> FEATURE:  
270 <221> NAME/KEY: misc\_feature  
271 <222> LOCATION: (465)..(465)  
272 <223> OTHER INFORMATION: w represents an adenine, thymine, or uracil  
274 <220> FEATURE:  
275 <221> NAME/KEY: misc\_feature  
276 <222> LOCATION: (476)..(476)  
277 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
279 <220> FEATURE:  
280 <221> NAME/KEY: misc\_feature  
281 <222> LOCATION: (510)..(510)  
282 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)  
284 <220> FEATURE:  
285 <221> NAME/KEY: misc\_feature  
286 <222> LOCATION: (521)..(521)  
287 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
289 <220> FEATURE:  
290 <221> NAME/KEY: misc\_feature  
291 <222> LOCATION: (545)..(545)  
292 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
294 <220> FEATURE:  
295 <221> NAME/KEY: misc\_feature  
296 <222> LOCATION: (549)..(549)  
297 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
299 <220> FEATURE:  
300 <221> NAME/KEY: misc\_feature  
301 <222> LOCATION: (552)..(552)  
302 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
304 <220> FEATURE:  
305 <221> NAME/KEY: misc\_feature

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TIME: 17:33:28

Input Set : A:\10-030566.ST25.txt

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306 <222> LOCATION: (612)..(612)  
307 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)  
309 <220> FEATURE:  
310 <221> NAME/KEY: misc\_feature  
311 <222> LOCATION: (617)..(617)  
312 <223> OTHER INFORMATION: w represents an adenine, thymine, or uracil  
314 <220> FEATURE:  
315 <221> NAME/KEY: misc\_feature  
316 <222> LOCATION: (660)..(661)  
317 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
319 <220> FEATURE:  
320 <221> NAME/KEY: misc\_feature  
321 <222> LOCATION: (723)..(723)  
322 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
324 <220> FEATURE:  
325 <221> NAME/KEY: misc\_feature  
326 <222> LOCATION: (735)..(735)  
327 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
329 <220> FEATURE:  
330 <221> NAME/KEY: misc\_feature  
331 <222> LOCATION: (757)..(758)  
332 <223> OTHER INFORMATION: r represents a purine (guanine or adenine)  
334 <220> FEATURE:  
335 <221> NAME/KEY: misc\_feature  
336 <222> LOCATION: (759)..(759)  
337 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
339 <220> FEATURE:  
340 <221> NAME/KEY: misc\_feature  
341 <222> LOCATION: (768)..(768)  
342 <223> OTHER INFORMATION: w represents an adenine, thymine, or uracil  
344 <220> FEATURE:  
345 <221> NAME/KEY: misc\_feature  
346 <222> LOCATION: (791)..(791)  
347 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
349 <220> FEATURE:  
350 <221> NAME/KEY: misc\_feature  
351 <222> LOCATION: (813)..(813)  
352 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
354 <220> FEATURE:  
355 <221> NAME/KEY: misc\_feature  
356 <222> LOCATION: (816)..(816)  
357 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
359 <220> FEATURE:  
360 <221> NAME/KEY: misc\_feature  
361 <222> LOCATION: (843)..(843)  
362 <223> OTHER INFORMATION: y represents a pyrimidine (thymine, uracil, or cytosine)  
364 <220> FEATURE:  
365 <221> NAME/KEY: misc\_feature  
366 <222> LOCATION: (852)..(852)

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 11/02/2006  
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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 23,38,48,81,83,84,115,152,155,159,170,174,182,184,206,220  
Seq#:4; Xaa Pos. 221,224,241,253,256,264,281,284,295,296,298,315,319,329  
Seq#:4; Xaa Pos. 358,364,377,380,403,406,435  
Seq#:48; N Pos. 3,12  
Seq#:49; N Pos. 9,15  
Seq#:50; N Pos. 6,12

**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35  
Seq#:36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51

**VERIFICATION SUMMARY**

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Input Set : A:\10-030566.ST25.txt

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L:711 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16

M:341 Repeated in SeqNo=4

L:1967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0

L:2010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0

L:2053 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0